

Gambaga Flycatcher *Muscicapa gambagae*: evidence for migration in West Africa?

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Despite reviews by Elgood *et al.* (1973) for Nigeria and Curry-Lindahl (1981) for Africa, knowledge of intra-African migration systems remains poor. The Gambaga Flycatcher *Muscicapa gambagae* is thought to be migratory (Urban *et al.* 1997). It has a disjunct distribution from Mali and Ivory Coast in the west to Somalia and south-west Arabia in the east, and Zaire and Kenya in the south (Urban *et al.* 1997). In West Africa it is claimed to be resident in Liberia, Ivory Coast, Ghana, Togo and Nigeria (Dowsett & Forbes-Watson 1993), a non-breeding migrant in Mali from August to December, presumably breeding further south in March and April (Urban *et al.* 1997) and moving northwards with the rains (Lamarche 1981). It has been recorded as a vagrant in Burkina Faso (Holyoak & Seddon 1989) and was recently recorded from Guinea (Nikolaus 2000). Borrow & Demey (2001) described its status as a rare to scarce resident and partial migrant in the above-mentioned countries. In East Africa it is also thought to be a partial migrant based on the mist-netting of 3 juveniles at night at Ngulia, Kenya, presumably on migration, and on the fact that all East African records south of 7°N are from November to April (Urban *et al.* 1997). Breeding has been recorded in Kenya in March (Richards 1992) and in south-west Arabia in June (Castell *et al.* 2001). Here we present data which indicate that, in contrast to Dowsett & Forbes-Watson (1993) and Salewski (2000), the Gambaga Flycatcher is a migrant to northern Ivory Coast and give information about its phenology there, together with the first breeding records for West Africa.

Our observations were made in Comoé National Park (11,491 km², altitude mainly 250-300 m, but with peaks to 600 m), north-east Ivory Coast (8°30'N-9°35'N, 3°00'W- 4°30'W), from mid-September to the end of April in the winters, 1994-1997 (in 1996/97 only from September to December and from the end of January to the end of April). The rainy season is from March/April to October and the dry season from November to February/March; average annual rainfall varies between 1,100 and 1,300 mm. The average annual temperature is 27°C. The north-east of the park is in the soudanian savanna zone, the south-west in the northern guinean savanna zone (Poilecot 1991). The habitats comprise mainly savanna (70%) with open woodland and riparian forest along the main rivers (Comoé, Iringou). There are scattered isolated forests of varying size without any connections to riparian forest mainly in the south of the park (Poilecot 1991).

Each day we spent eight to ten hours observing or mist-netting birds in different habitats within a radius of *c.* 5 km from of our base camp (8°45'N, 3°49'W) and

listed all species encountered. From these lists we calculated encounter rates for Gambaga Flycatchers by expressing the number of days with observations as a percentage of the total number of days in the month when observations were made. Due to the low number of observations in some months we calculated the mean of each month in the three seasons. Some additional observations were made in the same area in February-April 1998, in September-October 2000, and in the north of the park ($9^{\circ}16'$) in early 1999.

The occurrence of Gambaga Flycatchers in the area was distinctly seasonal (Fig 1), rising from a low observation rate in October, peaking in February and falling again to April. The only September record was in 2000 when one bird was mist-netted late in the month. From October to November we encountered mostly single birds in an isolated forest, whereas after the savanna fires in late December we regularly saw many birds in the savanna, often in pairs.

Of 20 birds mist-netted between September and April in bush/tree savanna and an isolated forest, only one had a few body feathers (<20) in moult, in November. Primaries of two birds netted in September and December were new, those of twelve birds netted in November-March were old and much abraded by February and March. For four birds (in December, February, March and April respectively) we were unable

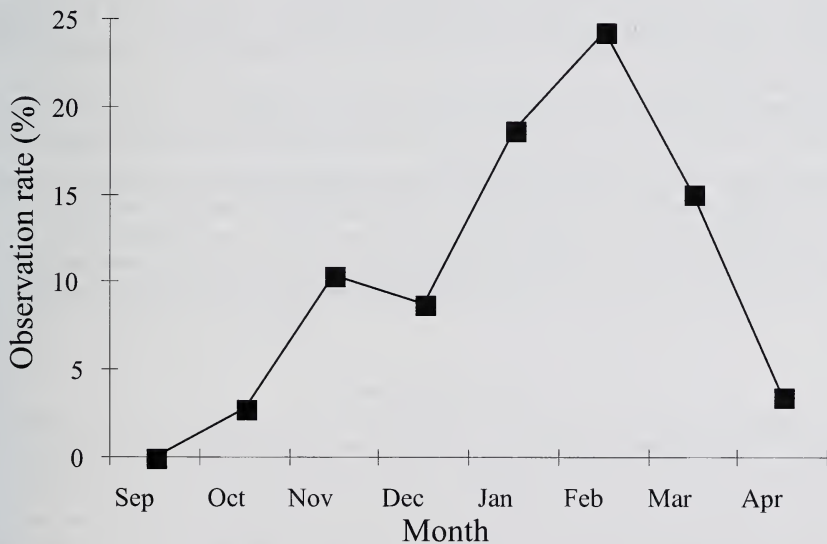


Fig. 1: Phenology of Gambaga Flycatcher in northern Ivory Coast. The observation rate is the percentage of days with observations of the species out of the total number of days when observations were made, in several habitats in all three years.

to determine whether the primaries were new or old. Two birds in November 1996 showed interrupted moult with new outermost 3-5 primaries and old innermost 5-7 primaries, suggesting ascendant moult as in the consuperspecific Spotted Flycatcher *M. striata* (Jenni & Winkler 1994). No birds examined had an incubation patch.

Two nests were found in February 1998, in bush/tree savanna. One was 4 m high in a fork of a branch in an 8 m tall *Lophira lanceolata* tree; the other, 80 m away, was 2 m high in a 5 m tall tree, in the first fork where the stem divided into three branches. It had an outer diameter of 6-7 cm and was 4-5 cm deep; there were two eggs, later abandoned. (This nest was photographed by KHF). A pair of birds was seen copulating in February.

Our observations seem to indicate that the Gambaga Flycatcher is an intra African migrant at least in some parts of West Africa and its status as being resident might have to be revised. In Ivory Coast this is corroborated by the fact that apart from our study, observations were only made between December and May (Balchin 1988, Demey & Fishpool 1991, E. Williams pers. comm., O. Lachenaud pers. comm.) to our knowledge. We suggest therefore that Gambaga Flycatchers are dry season breeding migrants to the study area and spend most of the rainy season further north, although there is a July record from Pewa (9°16'N), Togo, but this locality is north of our study site (Walsh *et al.* 1990). The two nests are apparently the first breeding records for Ivory Coast and West Africa (Grimes 1987) apart from a nest described by Bates (1927) from a locality somewhere "between Lake Chad and southern Cameroon" and the observation of one adult feeding a youngster in Cameroon (Schollaert 2001). Our record confirms the March-April breeding season given by Urban *et al.* (1997).

Apart from our observations hardly any data are available on moult in Gambaga Flycatchers. Bates (1927) described a bird shot in July as being in badly worn plumage. Pearson *et al.* (1980) observed birds with fresh plumage in March and one with worn flight feathers in November in Kenya. Our data suggest that the species does not moult in the area. In September birds have rather fresh feathers which are abraded by April; we suggest that moult takes place later further north, paralleling the migration pattern of Grey-headed Kingfisher *Halcyon leucocephala* (Skinner 1968).

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